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Art Unit: 2633

IN THE ABSTRACT: Please replace the current Abstract with the following:

AD

A fiber optic system for communicating between a central office and a downstream station is described. The central office has a TX unit, an RX unit and a continuous wave ("CW") laser. Each station has an RX unit and a tunable filter coupling the RX unit to the central office. During downstream transmission, the station's tunable filter is tuned to the central office TX wavelength so that the signal transmitted by the central office will pass through the filter and be received by the station's RX unit. During upstream transmission, the station's tunable filter is selectively tuned to a wavelength different than the CW laser wavelength, allowing selective reflection of light from the CW laser back to the central office. The tunable filter can thus be used to modulate the reflected light to effectively create an upstream transmission from the downstream station to the central office.